Attachment 1:

Summary of Comments Received in Response to Pryor Mountain Wild Horse Range EA and 2001 Gather Plan

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Introduction:

Twenty-one documents (letters and e-mail) were received by the Billings Field Office (BiFO) in response to the EA and 2001 Gather Plan for the PMWHR. BiFO appreciates the continued interest in management of the PMWHR and feels that much valuable input was provided to assist in the decision-making process. Individual letters are on file at BiFO. Individuals and agencies who responded include:

1 Dick Walton
2 William J. Fitzgerald, DVM
3 Margaret Webster
4 Nancy Curriden, Forest Supervisor, Custer National Forest
y Hancock

6 Daryl Beam, Eastern Wildlands Chapter, Montana Wilderness Association
7 L. M. Petterson
8 Randy Ingersoll
9 F. J. Schwieger, Pryor Mountain Wild Mustang Center
10 Marissa Godoy
11 Peter Lesica
12 Dr. Phillip Sponenberg
13 Kelly Sparks
14 Shawna Owen
15 Ginger Kathrens, Wild Horse and Burro Freedom Alliance, Colorado Wild Horse and Burro Coalition
16 Jerri Tillett
17 Doug Dreeszen, Past President, Montana Chapter, Foundation for North American Wild Sheep
18 Patricia M. Fazio, Coordinator, Wyoming Animal Welfare Network
19 Art Reese, Director, Office of Federal Land Policy, State of Wyoming
20 Trish Kerby
21 Dick Stark

Questions, concerns and comments were very diverse and an effort has been made to summarize and consolidate the content of all letters in order to facilitate BLM's response process. Questions are paraphrased to preserve the integrity of content. No intent is expressed or implied by BLM to question the merit of input, but whenever possible, BLM has provided clarification of details.

A. Questions and Concerns Related to Population Census and the Determination of AML:

What is the current BLM definition of Appropriate Management Level (AML)?

The current official BLM policy is that AML is the median population number defined by upper and lower limits of an acceptable range in animal numbers. An on-going national policy revision will change AML to be the high point of an acceptable range in numbers and also dictate that foals which are 6 months old by March 1 will count toward AML. This is an effort by BLM to bring horse census activity more in line with livestock stocking where a calf is counted after 6 months of age. There are also some Interior Board of Land Appeals (IBLA) decisions that define AML as the "optimum number" of wild horses or burros that would result in a thriving ecological balance and avoid deterioration of the range.

A brief history of AML over time is as follows:

"Wild Horse and Burro Program Guidance" issued under an IM in 1983. IM No. 83-289

AML is defined as the "median number" of adult animals. An adult is defined as an animal 2 years old and older.

4710-Wild Horse and Burro Management Considerations , Dated 11/23/88 and released 4-90

4710.32A - Defines AML as the "median population number, as well as upper and lower limits on herd size." Different states and offices have the flexibility to determine whether foals should or should not be included within the determination of AML. At the present time, this is still the"official" BLM definition of AML for management purposes.

Draft BLM Policy Handbook - 4710- Wild Horse and Burro Management Considerations

4710-1D1- states "The appropriate management level (AML) shall be expressed as a single number which is the high point of an established population range and represents the maximum number of wild horses and burros that the designated area can sustain and still maintain a thriving ecological balance". Once this maximum number is reached a gather and population control removal is warranted. It is also based on the number of adult animals, defined as those who have reached the age of 6 months or older by March 1. In most herd management areas (HMAs) this means that most, if not all, foals will be counted toward AML.

IBLA ruling- 109 IBLA 118 API 1989

"We interpret the term AML within the context of the statute to mean that "optimum number" of wild horses which results in a thriving ecological balance and avoids a deterioration of the range" The decision also states that using 1971 numbers or any other number existing at a point in time as AML "cannot be justified under the statute."

Dahl vs. Clark, supra at 595

The definition contained in IBLA 118 is quoted and, "Proper range management dictates removal of horses before the herd size causes damage to the range land. Thus, the optimum number of horses is somewhere below the number that would cause damage." This is an example of some case law and decisions which do support using the high point of the range as the "optimum number" or AML.

How is this definition interpreted for PMWHR management purposes?

The Billings Field Office (BiFO) has, in the past, defined AML as the median number of adult wild horses (12 months and older), determined through BLM's planning process, to be consistent with the objective of achieving and maintaining a thriving natural ecological balance and multiple-use relationship. The Pryor Mountain Herd Management Plan (HMP) (June 15, 1984), and the Billings Resource Area Management Plan (Sept. 28,1984) established the initial stocking rate for the range at 121 total head of wild horses.

The 1992 Revision of the Herd Management Area Plan (MT- 025-2-18/1992) recommended reducing the stocking rate to 95±10% horses annually, based on recalculated grazing capacity acreage (involving the loss of the Sorenson Extension-NPS lands) for the horse range. It was not stated whether this number was to include or exclude foals of the current year. Due to concern for the potential impact of this decision on the genetic viability of the herd, the Area Manager subsequently recommended to the District Manager in May 1994 (letter on file at BiFO), that the herd be maintained at a minimum of 100 adult horses (12 months and older), plus foals of the current year (annual average of 28±6 foals), for a total post-removal population size of approximately 130-140 horses.

Long term data indicate that BLM management efforts have resulted in a total pre-removal population size (including foals) fluctuating between 136-200 wild horses annually, with post-removal numbers ranging between 115-155 horses. The **average post-removal population size** since 1971 has been 142±24 horses, or 144±21 since 1984. Most evidence indicates that this population size (~140) has resulted in both a healthy, genetically sound and productive herd of wild horses, as well as a thriving and prolonged ecological balance on the range.

How does the 2000-01 National Wild Horse and Burro Strategy affect management for AML?

The "Restoration of Threatened Watersheds" or "Living Legends in Balance with the Land" initiative was introduced as a means to achieve healthy rangelands and viable wild horse and burro herds. During 1999, the BLM completed a comprehensive program and population modeling analysis. This analysis revealed that at current funding levels and adoption demand, wild horse and burro populations would increase at a faster rate than BLM's ability to remove excess animals. Although a BLM initiative, the National Forest Service was invited to participate and was consulted on all recommended strategies within this initiative.

Faced with this critical need and acting on recommendations from the National Wild Horse and Burro Advisory Board, BLM modeled several management scenarios for achieving AML to evaluate time efficiency and cost effectiveness. Among funding and marketing proposals, the primary recommendation is to establish a four-year gather schedule for all herd management areas (HMAs) beginning in FY2001. This means that for most HMAs a range in AML must be established which provides for both a viable, self-sustaining herd of wild horses and well as negligible long-term negative impacts to range health. For the Pryors, both ends of this range are critical and must be clearly and aptly defined.

How do the results of recent research efforts on the PMWHR (within the last decade) affect evolving management strategies for AML?

Due to concerns about the long-term impact of the horse herd on the Pryor range as well as the

potential impact of a lowered herd size on genetic viability, an eight year multi-agency and institutional research effort was undertaken to address these issues. The results of these efforts have been released to the public during several research forums and in printed documents.

One goal of these efforts was to identify a viable range in AML which would serve the interests of both a healthy horse herd and a healthy range. Research efforts have shown that reducing the PMWHR population below 140-150 total herd size, over the long term, could have a negative effect on the genetic viability. The genetic diversity of the population is high but consists of rare and low frequency material which can be easily lost through cycles of random breeding events under small herd sizes (<200 animals). This suggests that this number (140-150), which provides the herd which a genetic effective population size (Ne) of ~50, should be considered a minimum if the intent is to manage for a self-sustaining herd. If outside genetic contributions are considered acceptable then the population size could be lower, and small numbers of genetically-similar horses would need to be introduced to the herd every few years. Other management efforts, such as increasing the ratio of breeding males to females and promoting genetic mixing through the establishment of larger numbers of smaller harems, can also act to enhance herd viability within a given population size.

Other studies have indicated that determining the health of an ecosystem should not be approached from a single year and limited perspective. These studies suggest that long-term monitoring (or modeling) over a landscape-wide approach can best reveal system response. As a result, the Spatial Ecosystem Model (Coughenour, Colorado State University) was developed to help managers attain a long-term predictive tool. This effort represents an alternative strategy to traditional approaches for evaluating carrying capacity based solely on forage supply or animal population dynamics. It also provides an opportunity to expand on existing baseline data and use more information about the system. In doing so, the model predicts system response under different arrays of environmental conditions and user impacts. This model was designed to be updated every five years and related research has been subjected to peer review with documentation on file at BiFO.

These studies, then, may help to define an acceptable range in herd size and anticipated impacts on the Pryor range. For example, a horse population even as small as 50 animals would have a noticeable impact on the range. More importantly, a herd size exceeding 200 horses is clearly predicted to be beyond the long-term carrying capacity of the range. Current model predictions are that grazing impacts to the range can be considered to fall within an “acceptable zone”, under cycles of fluctuating environmental conditions, as long as horse numbers range below a herd size exceeding 200. Exactly what upper threshold size (up to 200 animals total) should trigger a gather, might need to be re-evaluated regularly by assessing current range monitoring data (condition and trend) and grazing impacts to critically-used areas (utilization) while also considering precipitation cycles and the potential for drought conditions. This was the intent of the current EA and Gather Plan for the Pryors.

What does this mean with respect to the upcoming gather and future management efforts for AML on the PMWHR?

The intent of the EA and Gather Plan (MT-010-1-44) was not to propose a revision of the existing AML for the Pryor horse herd. The intent of the document was to provide the

justification and logistics for the proposed population gather and selective removal. As emphasized in the plan, all available evidence including research, adaptive modeling and range monitoring efforts concur that range conditions may suffer markedly under the prolonged impact of a wild horse population surpassing 200 animals in size. BLM's intent is to reduce the herd to a size which will not negatively impact its genetic viability in the short term nor cause irreparable harm to the range. This will allow time for further interagency and public discourse as BiFO proceeds with on-going data evaluation and the herd plan revision for the Pryor Mountain wild horse herd.

B. Questions and Concerns Related to the Overall Need for the Proposed Action:

Would natural mortality eventually rise to a level where the population of wild horses would be stabilized negating the need for BLM management and population control?

This No-Action Alternative was considered but eliminated from further analysis due to unacceptable long-term impacts on the population and range, and the inability of this alternative to reduce the herd to AML. Under this alternative, the wild horses would be allowed to regulate their numbers naturally through predation, disease, as well as forage, water and space availability. At this time the herd is not substantially regulated by predators. Research with other wild horse herds, which are known to be regulated by predation (Montgomery Pass Wild Horse Territory), indicate that at least 70% of the foals must succumb to natural predation annually in order for stabilization of herd size to occur. It is interesting to note that in areas where predation appears to be an effective regulator on horse herds, there is substantially larger acreage available to the horses (3 times the acreage available in the Pryors). This may provide the herd with relief areas of minimum predation impact and increased foal survival. Within the somewhat restrictive Pryor range, high levels of predation might significantly reduce foal recruitment and zero out certain age classes.

At this time much greater levels of predation, or a combination of disease and starvation as well as predation, would be needed on the Pryors to significantly impact herd size. As a result, this alternative would result in a steady increase in herd size which would quickly exceed the carrying capacity of the range. Ecosystem studies have shown that the herd would potentially increase to 300-450 horses before density-dependent regulatory mechanisms would take effect. By this time, the herd would be experiencing high levels of natural mortality (in all age classes) with reduced foaling rates and individual fitness coupled with severe impacts to wildlife and irreparable damage to the range. The results of this alterative would be devastating, not only to the horse herd, but all components of the Pryor ecosystem.

Could water-trapping be considered a substitute for the proposed action?

Water-trapping could not be considered a viable alternative on the Pryors, at this time, for several reasons. The reduction in herd size, necessary to return the herd to AML, would require extensive and on-going trapping efforts throughout the summer and fall period. At this time of year, almost all available water sources (~18) would need to be simultaneously trapped or completely closed off to the horses, in order for efforts to be effective. In addition to taxing BLM

resources and budgets, this alternative would subject the herd to unnecessary and prolonged intrusion. This level of effort would not be considered "a minimum level of management". Trapping these areas for horses would have prolonged impacts on wildlife access to water as well. Locations for water-trapping almost exclusively exist within BLM wilderness study areas or FS recommended wilderness. It seems likely that, over a prolonged period, this activity might cause unacceptable levels of impacts to the water sites and surrounding areas.

Is there a way to stabilize the Pryor herd without subjecting the population to repeated gathers and selective removals?

The only alternative to stabilizing population size and limit growth rates, without removals, is through the fairly aggressive use of fertility control. Fertility control has been used successfully on several east-coast barrier island populations of wild horses. These studies have produced long-term data which suggest immunocontraception may be a viable alternative to repeated gathers, especially for smaller (<200 animals in size) populations. In general, these herds are remotely darted with booster shots of vaccine (requires that over 80% of breeding-age mares are contracepted annually) which negates the need to gather. Unfortunately PZP research trials with wild horses in Nevada, although effective, have required gathering the animals for vaccination purposes. Research continues on this alternative in order to develop vaccines which have a high efficacy for more than a single year and to determine the magnitude and extent of possible behavioral and physiological side-effects regarding the long term use of these vaccines on individual mares.

The fertility control (on all age classes of mares) alternative was considered for the Pryors, but eliminated from further analysis due to unacceptable impacts on the population at this time, and the inability of this alternative to reduce the herd to AML. Failure to reduce the herd in a timely manner would undoubtedly result in irreparable harm to the range.

C. Questions and Concerns Related to Impacts of the Proposed Action on Social and Breeding Behavior as well as Genetic Viability of the Herd.

How were selective removal decisions made within the herd?

Details regarding the selective removal strategy are provided under the proposed action (pp 24-25) in the EA and Gather Plan. The best available data on horse and range ecology and population dynamics, have led BLM management to determine that the appropriate philosophy for the Pryor herd involves retention of the natural social integrity of the population, and allowing the majority of breeding decisions to be driven by the horses. This means that priority has been given to retaining dominant harem stallions and reproductively successful mares (and most 2001 foals) within most established family groups (Appendix 1). This approach also maintains reproductively fit horses to assist with the long-term perpetuation of the herd, and has genetic benefits for the herd as the older animals tend to possess a greater diversity of genetic material. It also recognizes that the current number of sub-populations and the average number of harems on the range (~30), may promote important genetic exchange. Additional animals may

be removed depending on 1) the number of surviving, orphaned or poor condition foals by the time of the gather, 2) the individual condition of some younger mares which are currently in poorer condition, and 3) some younger stallions who are coming of age but are within over-represented genetic lines within the herd.

Since the social structure of the herd is very fluid in nature, strategies for selective removal must also be fluid and will be revised up until the time of the gather. Selections for removal have been revised since the release of the EA and Gather Plan and updates are presented in Appendix 2. All harems and individual horses will be equally subjected to gather activities as another identified goal of this effort is to further collect valuable genetic and herd health information. Younger foals (less than 1 month old) which demonstrate duress because of the gather activity, may be exempt if deemed appropriate by the authorized officer. It is not the intent of BLM to remove all mares from any particular harem stallion, however, some groups have larger numbers of younger animals and may be more heavily impacted by the selective removal process. Also, it is the intent of BLM to keep intrusive gather activity to a minimum, and believe that this can be done in an extremely timely fashion with limited impacts to the herd as in 1997 (by using a helicopter).

Will the wild horse bands be kept together during gather efforts or will they be fragmented with the potential for permanent loss of mare-stallion relationships?

Within the Pryors, BLM's intent is to try and gather the herd with as little disruption to the family groups as is possible. We were successful with this approach in 1997. The gather this year, however, is happening a month earlier and we do not expect similar distribution patterns of horses as in the last gather. Primarily these distributions will be driven by weather at the time of the gather. As such, it might be necessary for several groups of horses to be brought down off the mountain at one time. The contractor will make every effort to keep groups intact during this process. Family bands will be held as separate groups at the Britton Springs facility (and released together following selective removal), as long as we are able to accommodate the large numbers of horses which may be brought in when working the subalpine meadows of the range.

Extensive observations by BLM during years of gathers, selective removals and re-releases of captured animals indicates that the majority of horses have minimum trouble in regrouping into family bands following release. Admittedly, there is some disruption during the process itself and this seems unavoidable in most cases. However, public concerns that noted stallions from other well known herd areas lost their mares for life following the disruption of gather activity are unfounded. BiFO has evaluated this situation and has records on file which indicate successful pairing between this stallion and his mares following gather activity.

Will a selective removal of ~58 horses reduce the herd below a genetically viable level?

The PMWHR herd currently totals 181 animals, 1 year of age or older, with 33 live foals born as of July 31, 2001 (Appendix 2). To date there has been limited foal loss (5), but adult mortality has occurred due to lightning strikes within the past couple of months. It is still estimated that approximately 125-150 horses will need to be captured in order for a minimum of 58 horses, aged 1 to 5 years, to be selected for removal (Appendix 1, Figure 1). The remaining captured animals will be re-released onto the range resulting in a population balance of ~150 horses.

Within the Pryor herd, the prime breeding-age classes are 7 to 13 years for males and 5 to 11

years for females (data provided in EA/Gather Plan). The proposed action will not impact these core breeding classes. The low number (~4) of 5 year-old horses selected for removal are all stallions. The removal will impact the ratio of breeding age classes to non-breeding age classes, favoring an increase in the former by 12% (Figures 1 and 2). This strategy will result in a effective genetic population size (Ne) of at least 50, the minimum proven to maintain genetic health in the Pryor herd over the past 30 years. Although the minimum Ne is still controversial for wild horse herds, recent research at Princeton University suggests that the range of a viable Ne may be broader than originally presumed and deserves further study.

How were individuals chosen to be vaccinated and why is the number so low?
Purely from the standpoint of humane management (and compassionate use of PZP vaccine), BLM is recommending that all yearling and two-year old mares (~11) remaining with the herd after the selective removal, receive a single-dose (primer) of PZP contraceptive vaccine. The number of these mares is low as these age classes will also be subjected to selective removal and about 50-60% of each class is determined excess and will be removed for adoption (Appendix 1).

This one-shot application, applied at the capture site, will not be sufficient to prevent these young mares from conceiving but will act to enhance the immune system response to subsequent applications of the vaccine. The decision to apply a booster vaccine to these same mares, in order to prevent conception during the 2002 breeding season, will be made during late Fall 2001-early Winter 2002. The BLM will prepare a separate Environmental Assessment and Action Plan for public review and comments (30-day comment period) prior to proceeding with this booster effort. The intent of this action would be to provide a single booster, allowing one year of infertility, in order to give the mares an opportunity to fully mature before shunting limited resources to a developing foal. There are also known genetic advantages to this approach of contracepting younger mares, which have been well researched for the Pryor herd, and were discussed in the EA and Gather Plan.

Will the application of immunocontraception alter the natural behavior and well-being of the mares which may be vaccinated?
If the mares proposed for primer shots and/or boosters are already pregnant, research has shown that the vaccine will not affect normal development of the fetus, hormone health of the mare or behavioral responses to stallions. Also, among mares, PZP contraception appears to be completely reversible and to have no ill effects on ovarian function if the mare is not contracepted for more than 3 consecutive years.

Recent behavioral studies with the Assateague Island and Shackleford Banks populations have shown that contracepted and uncontracepted mares had virtually identical activity budgets, associated in a similar manner with the harem stallion and showed no increase in harem exchange behavior or change in their social status during the length of the study. Current data for the PMWHR shows that a high rate of interchange activity between harems already appears to the "norm" for yearling and especially two-year old mares. The Shackleford study, however, did raise concerns that young primed (one shot only) mares showed a decrease in the overall length of time they spent grazing as a result of increased herding behavior by the stallions. Currently, the reasons for this behavior are unidentified and research continues in this area. All Pryor mares subjected to fertility control would be monitored for social behavior and compared to existing

baseline (control) data developed during previous field studies.

Will the application of immunocontraception alter the breeding behavior and fitness of the harem stallion?

Although data exists for some wildlife, no scientific studies have been published which cite prolonged estrus or cycling in horse mares with the continued pursuit by harem stallions late into the breeding season. Recent studies done on the Shackleford Banks horses, by students of Princeton University, suggest some behavioral changes in herding activity but these studies were of limited duration. Efforts on the Pryors, at this time, will involve only yearling and two-year old mares who, because of their age, are not generally pursued and bred repeatedly by stallions until successful conception. If BLM proceeds with booster shots of PZP, these types of behavioral interactions will be monitored and evaluated prior to any recommendation for a broader application of fertility control within this herd.

D. Questions and Concerns Related to the Presence and Gathering of PMWHR Horses on the Upper Elevations of the Pryor Mountain and NPS Lands:

Are temporary traps needed to mitigate pressures on animals being herded from the top of the mountain or from unauthorized Custer NFS lands?

It is unlikely that interim traps will be needed for family groups being brought down from designated and authorized parts of the horse range. This is also true for any horses which may be over on unauthorized Custer NFS lands around Tony's Island and Dryhead Overlook. During the gather in 1997, several groups were brought off the mountain and traveled the distance to Britton Springs quite safely. The contractor usually will allow the family groups to pick the route and their rate of speed down the mountain and will only apply additional pressure if the group starts to break apart or when they are close to the capture trap. BLM found that the majority of horses, of all ages, recovered from the herding pressure in under 10 minutes and proceeded to eat and drink within the Britton Springs holding corrals.

It is possible that temporary trap sites will be needed in order to remove a few horses that are currently on unauthorized Custer NFS lands within the Big Ice Cave and Commissary Ridge areas. The contractor will initially attempt to use helicopter herding to bring these horses back onto designated range and down the mountain to Britton Springs. If these attempts fail, due to the presence of fences or other barriers, then the authorized officer will consider using temporary traps and transporting the animals to the corrals in stock trailers. These efforts would only take place after consultation and full approval from the Custer Forest Service.

Are temporary traps needed to mitigate pressures on horses being herded from the Bighorn Canyon National Recreation Area (BCNRA)?

In 1997 it was unnecessary to construct temporary traps to bring in horses from the BCNRA-NPS side (Dryhead) of the horse range. We anticipate the same success with this gather effort. If initial attempts fail however, for as yet unidentified reasons, BLM will consider temporary traps only after consultation and full approval from the BCNRA-NPS.

Is a separate EA needed to address removing wild horses from Custer National Forest Service lands?

BLM is required to manage wild horse herds within the designated boundaries available to them (PL 92-195 Sec 3 (b) (2) and 43 CFR 4710.4). Therefore, a separate EA and Gather Plan is not necessary to remove horses from adjoining areas to designated or available lands within the Pryor Mountain Wild Horse Range. Full public disclosure of the effort is required along with corresponding NEPA documentation (EA # MT-010-1-44). A written request from the land owners to remove the horses is recommended as this indicates awareness of the intent to gather and permission for these activities to occur (43 CFR 4720.2).

What is the status of the decision regarding the repair or replacement of the northern PMWHR boundary buck and pole fence?

In March 2000, the Forest Service (FS) went out to the public with a scoping letter regarding their concerns that the existing buck and pole fence is not keeping wild horses within their designated territory and range. Wild horse family groups are crossing into areas including the Lost Water Canyon Research Natural Area (3,645 acres) and lands in the Lost Water Canyon area recommended for wilderness classification (management area H). FS lands beyond the northern boundary Buck and Pole fence are not authorized for use by the horses. Therefore the FS wishes to establish a more effective barrier and the BLM requested authorization to construct an improved fence.

In February 2001, BLM requested further clarification from the Forest Service regarding the management status of all Custer Forest Service lands used by the horses at the present time. In their response (June 13, 2001), the FS indicates that Forest Plan Management Area Q has long been considered as "wild horse territory" under the 1971 Wild Horse and Burro Act and 36 CFR 222. They re-iterate that unauthorized horse use of the Tony's Island and Dryhead Overlook areas is exceeding the incidental use that is allowed by the Custer Forest Plan. Horses are also penetrating the Crooked Creek cattle allotment on Commissary Ridge. The FS states that they are convinced that evidence does not exist which supports wild horse use of Tony's Island and Dryhead Overlook at the time of the Act (December 1, 1971). They also state that they are not convinced that formal expansion of the range onto lands beyond Management Area Q would significantly affect the genetic viability of the Pryor herd.

The FS does recommend that the analysis and decision on the proposed fence reconstruction be done simultaneously and in co-ordination with the PMWHR herd plan revision, and that all three agencies (BLM, NPS and FS) continue to be involved in joint management decisions with BLM reaffirmed as the lead agency. BLM fully concurs with this latter recommendation.

E. Questions and Concerns Related to the Timing of the Proposed Action:

What factors determine the timing of the wild horse gather?

Many BLM offices, responsible for managing wild horse herds, avoid the Spring of the year for gather activity due to concern over impacts on pregnant mares and young foals. In the past, the

Pryor gather was conducted in late Winter/early Spring when the majority of horses were lower on the mountain. This distribution would facilitate gathering by horseback, but did result in reported abortions while mares were in holding corrals. When BiFO went to helicopter gathers in 1997, it was agreed that the Fall period was a more appropriate time to gather this herd, allowing for less negative impact on the majority of breeding females. The success of the 1997 October gather, where only one yearling mare aborted a 2 month old fetus in the corrals, supports this decision.

A gather in August on the Pryors would be too early as some mares have yet to foal for the season. As of July 31, there were 5 mares left to foal on the Pryors this year. Two of these mares are with the Bigfoot harem in which there are no younger animals considered available for removal. As such, if young foals in this group are struggling during gather activities, this group will not be brought to Britton Springs if at all possible. The other three mares are with different groups, but the same policy will apply. If the contractor notes a very young foal struggling during gather activities, that group will be avoided if possible, or given an opportunity for relief from herding pressure if deemed necessary.
In addition to concerns over the welfare of horses, BiFO uses a national contractor for gathers on the Pryors. Availability of these contractors often determines exactly when a gather will take place, as each year, many BLM offices compete for the same few highly-experienced contractors.

Does the BLM consider the impact of timing of the gather (and public land closures) on any other resources or resource users besides the horses?
Weather can play a large role in determining the timing of a gather, especially when helicopters are used. Late Fall and early Winter periods can bring significant storm activity to the Pryors which could halt helicopter operations for several days. During mid and late Summer much public recreational and sightseeing activity occurs on the Pryors involving individuals from many different states and countries. An October gather in 1997 seemed to raise concerns from a number of hunters who use the Pryors. This year BLM felt that by holding the gather a month earlier (as was suggested by some impacted public), the change in timing would relieve some of the inconvenience of range closures during hunting season. As in 1997, BLM plans for the rotating closures to be few in number and brief in duration. BLM anticipates the gather to be started and completed within 3-4 days. Publication of the schedule for closures will occur in the Federal Register, and interested public may contact BiFO regarding details at any time.

F. Questions and Concerns Related to the Health Care of the Captured Animals:

Are APHIS veterinarians being substituted for contract veterinarians at BLM gather sites?
BLM has had a national MOU with the USDA Animal and Plant Health Inspection Service (APHIS) for over two years. The purpose of this relationship has been to provide readily available consultation and service to the BLM Wild Horse and Burro Program. This relationship has been extremely valuable to the BLM as these trained veterinarians have provided assistance in many areas of the program from consultation during gathers to guidance during the

development of research efforts and advice on animal health care at adoptions.

During the Pryor gather a local contract veterinarian will provide all necessary animal medical services and consultation to the authorized officer. It is our policy to have this individual check all animals that are brought into the facility within 12 hours or less. This veterinarian provides all emergency services as well as performing all blood draws for genetic and health studies and vaccinations during preparation for adoption. An APHIS veterinarian may be present to assist and gain from the gather experience.

G. Questions and Concerns Related to Health of the Range:

How and when was the last assessment of range condition and trend done for the PMWHR?

Key indicators of long-term trend were measured two to five times between 1981 and 1997 on six permanently established Daubenmire transect sites within the PMWHR. Other photo plot long-term trend studies were done near these Daubenmire locations between 1968 and 1979. Although each method employs a different means of sampling, the data provide estimates of percent plant cover and percent species composition in both cases. Cover is a primary indicator of soil protection and composition is an indicator of plant community dynamics in the local environment. When combined, these values yield an overall assessment of the ecological condition of a site (scaled from poor through excellent).

Current trends in PMWHR range condition were last summarized over a twenty-eight year period (1968-1996) by BiFO range specialists in 1998. Five general areas were selected due to their historical use patterns and broad representative coverage of all major areas available to wild horses and wildlife. Plant indicator species used in the analysis included both desirable forage types as well as less palatable invasive species. Results indicated that, in an overall sense, ecological conditions are slowly improving on the horse range. This upward trend, however, is based on only marginal indicators. Species composition, throughout the sites is primarily poor, and although cover was generally rated excellent, the overall ecological condition was rated fair to poor. Given the extreme climatic conditions of the area as well as generally poor soils, recovery of this rangeland from the heavy historical impacts of domestic livestock and a wild horse population closer to 300 animals in size, is expected to take many years.

What were the results of the latest ecological site inventory for the PMWHR and how were they applied in resource management?

Revision of the 1981 ecological site inventory, based on revised acreage calculations, was prepared for the 1992 PMWHR Herd Plan Revision. This inventory was used to calculate forage production and grazing capacity for the horse range, based on range site classifications (soil type), precipitation level zones and condition class estimates. In summary, over 25% (10,000

acres) of the horse range was estimated to produce no forage and consists primarily of rock outcrop or dense trees. Disregarding NFS lands (2500 acres) which have not been classified, the balance of the range is estimated to exist in poor (38%, 13,600 acres), fair (29%, 10,300 acres), and good (4%, 1500 acres) condition. When combined, poor and no production range are estimated to comprise almost two-thirds of the total acreage on the PMWHR and produce less than 25% of available forage. Conversely, almost one-third of the total acreage is estimated to be in fair to good condition and produce over 70% of the available forage.

Since these data were revised, more sophisticated and accurate techniques have been developed for GIS mapping, and computer programs (models) have been developed which provide alternative strategies to these traditional approaches for evaluating grazing capacity. Over the past few years there has been regional interagency investment in the development of an Pryor ecosystem model which evaluates system response over a landscape approach. The real value of this approach is that multiple layers of the ecosystem (from soil to predators) can be included, simultaneously, as driving variables for system dynamics. At the same time the system is subjected to natural cycles of environmental stressors including weather, fire and so on. Weather especially, is known to have a major impact on system dynamics within the Pryor range. While models can only be used in a predictive sense, they at least consider the changing or dynamic state of most ecosystems. Assuming static range conditions over long periods of time is potentially dangerous in resource management. BLM is hopeful, therefore, that managers will continue to support efforts to revise and improve these modeling efforts for the PMWHR.

H. Questions and Concerns Related to Impacts of the Wild Horse Herd on Wildlife within the PMWHR?

Both mule deer and bighorn sheep populations in and near the PMWHR are lower than desired. How does BLM know that indirect competition (e.g. avoidance behavior) with the wild horses isn't causing these declines?

BLM does not currently have data to support the contention that the presence of the wild horse herd is negatively impacting wildlife species in some indirect way. Indeed the PMWHR was established for multiple use management (and not strictly as a wild horse refuge) which considers all public values, and this mandate directs BLM management efforts. In the past, BLM has actively participated in research efforts to evaluate potential competition between co-existing ungulates. Currently, the BLM is very interested in on-going research efforts by USGS-BRD researchers (Ft. Collins, Co) to evaluate population health issues and potential habitat expansion for bighorn sheep within the BCNRA.

The BLM very much believes in management efforts to support viable populations of all three major ungulate species within the Pryor system. On the other hand, the Wild Free-Roaming Horse and Burro Act (PL 92-195) of 1971 very clearly states that wild horses and burros shall be managed as an integral part of the natural system of the public lands. This means that under the mandate of multiple use, wild horses are to be considered equal to other identified values within an ecosystem and not necessarily sacrificed to permit survival of other components. Finding a balance, which offers an equal playing field for all identified resources, is often the most difficult

part of ecosystem management.

I. Questions and Concerns Related to Impacts of the Proposed Action on the Sensitive Plant Species within the PMWHR?

Will gather activities and temporary trap sites set within the PMWHR potentially impact populations of sensitive plant species?

Several rare and sensitive plants occur in the arid and semi-arid plant communities of the Pryor Mountains. Among these is Lesquerella lesicii (Pryor Mountain bladderpod), which exists within three areas of the PMWHR, including Mystery Cave, Big Coulee and Sykes Ridge. The largest population occurs on Sykes Ridge, in an area where horses may also be found. In addition, there are other rare and sensitive endemics on the range including seven subpopulations (two on Burnt Timber Ridge) of Shoshonea pulvinata (shoshonea). At this time, all populations appear to be thriving but there is concern regarding the potential impact of trampling especially during gather activities.

Based on the typical distribution patterns for Pryor horses in September, it is not expected that large numbers of horses will be brought down off the mountain using either the Sykes Ridge or Big Coulee areas. It is expected, however, that under pressure from the helicopter, horses on the subalpine meadows will travel down Burnt Timber Ridge and generally will stay along the road or already well-established horse trails. This ridge appears to provide the shortest and most direct route to Britton Springs. If this is the case, potential trampling effects by the horses would be limited. Furthermore, if any temporary traps are needed, they will not be constructed within close proximity of known sensitive plant populations.

J. Questions and Concerns Related to the Structure and Format of the EA and 2001 Gather Plan:

Why is it necessary to consider alternatives within the EA and Gather Plan which have been eliminated from further analysis?

NEPA guidelines for the preparation of Environmental Assessments (EA) require that several management alternatives be developed during the decision-making process. These alternatives are then judged on merit and value and may be eliminated from further consideration. This may happen if it is determined that the alternative may not either establish or maintain management goals. This was the process whereby four alternatives were initially developed for the Pryor EA and Gather Plan and two were ultimately eliminated from further consideration.

Why was it necessary for the document to be so excessive in content and lengthy in size?

The PMWHR has been the subject of much controversy and debate regarding wild horse management for some time. This area has also been subjected to extensive research studies in efforts to adequately address these controversial issues. Much of this data has been analyzed and evaluated as BLM has focused on the herd plan revision for the past couple of years. BLM believes that sound decisions are best developed by considering all available data and

encouraging public input throughout the decision-making process. As such, BiFO decided to release much of the data which will be further used, updated and evaluated during the herd plan revision. The intent was to provide a courtesy preview to the public, and other agencies, to stimulate further insight and valuable discussion.